

#11
1-14-04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s): SALGADO

SERIAL NO.: 09/448,005

ART UNIT: 2622

FILING DATE: 11/23/99

EXAMINER: SHERRILL, J.

TITLE: IMAGE TRANSFER DEVICE WITH AUTOMATIC IMAGE
ADJUSTMENT

ATTORNEY 690-008858-US (PAR)

DOCKET NO.: D/99253

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APPELLANTS' BRIEF
(37 C.F.R. §1.192)

This is an appeal from the final rejection of the claims in the above-identified application. A Notice of Appeal was mailed on October 07, 2003. The fees required under 37 C.F.R. §1.17 are being submitted herewith. This brief is being submitted in triplicate. The appendix of claims are attached hereto.

I. REAL PARTY IN INTEREST

The real party in interest in this Appeal is: Xerox Corporation

II. RELATED APPEALS AND INTERFERENCES

There are no directly related appeals or interferences regarding this application.

III. STATUS OF CLAIMS

Claims 1-23 pending in the application.

Claims 1-23 have been finally rejected.

The claims on appeal are 1-23.

IV. STATUS OF AMENDMENTS

The Amendment filed on July 16, 2003 was not entered.

V. SUMMARY OF INVENTION

The present invention, as described on page 16, lines 26-35, and page 17, lines 1-5, is related to an image transfer device 10 having a CPU 20 that is programmed to perform image transfer features (e.g. image shift, image rotate, border delete, etc). during image transfer operations of the device. The CPU 20 has a predetermined processing capability. As described on page 17, lines 9-20, and shown in Fig. 4, the CPU is programmed to determine if the image on a sheet medium, which is to be transferred with the device 10, has a size that exceeds the processing capability of the CPU 20 for a given image transfer operation. The CPU 20 is also programmed that upon determining that the size of the image on the sheet medium exceeds the

processing capability of the CPU for the given operation, the CPU 20 automatically modifies the image to allow the operation to be performed, while displaying a warning message.

VI. ISSUES

1. Are claims 1, 3-7, 9-13, 16-20 and 23 unpatentable under 35 U.S.C. 103 as being obvious over Hashimoto et al. (U.S. Patent No. 5,907,319; hereinafter Hashimoto).

2. Are claims 8, 15 and 21 unpatentable under 35 U.S.C. 103 as being obvious over Hashimoto in view of Salgado et al. (U.S. Patent No. 5,946,527; hereinafter Salgado).

VII. GROUPING OF CLAIMS

The claims do not stand or fall together.

The claims are grouped as follows:

Group 1 Claims 1-7

Group 2 Claim 8

Group 3 Claims 9-14

Group 4 Claim 15

Group 5 Claims 16-20, 22

Group 6 Claim 21

Group 7 Claim 23

VIII. ARGUMENT

A.

1. Claim 1

Claim 1 recites that in response to registering with the controller that the image on the medium (i.e. the original image being read by the reader) is larger than a predetermined size, then forming with the controller a modified image from the image on the medium.

Hashimoto does not disclose or suggest these features.

In Fig. 2, Hashimoto discloses a copier with an electro-optical scanner 15, for scanning documents. The copier also has a printing section for printing images on paper. The printing section of the Hashimoto copier includes an optical writing section using a raster scanning laser to "write" processed image data on a photo conductive drum 40 (the latent image on the drum 40 is developed by the developing section and transferred to paper). The copying process is controlled by CPU 130 (i.e. image data generated by the scanner 15 is received by the CPU 130 which controls the writing laser to write the image data on drum 40). The CPU 130 communicates with an image control circuit 132 that generates various kinds of timing signals for the writing laser in order to allow for various editing functions to be performed. These functions include masking, trimming, erasing, image shift (see col. 8, lines 26-29, and col. 9, lines 1-4). These functions are selected by the user from function keys on the editor 140 (see Fig. 4 and col. 8, lines 66-67). The editor 140 is connected via main CPU 131 to CPU 130 and a desired editing function (e.g. masking, trimming,

image shift) input by the user on the editor 140 is sent via CPU 131 for execution by the image control circuit 132 (col. 9, lines 1-3). Thus, selection of any of these functions does not involve registering, with CPU 130 or any other controller, that the size of the original image (i.e. the image on the document being copied) is larger than a predetermined size. Rather, the image control circuit 132 or CPU 130 merely varies the timing of the writing laser in order to effect the function selected by the user. For example to effect an image shift, the laser timing signals are changed from the standard timing signals (i.e. the timing signals which cause the laser to generate the latent image on the drum 40 in a standard position wherein the developed image is centered when transferred to paper) so that the writing laser forms the latent image on the drum 40 in a shifted position compared to the standard position. Providing the CPU 130 with the ability of performing user selected editing functions (e.g. masking, trimming, erasing, image shift) as in Hashimoto does not mean that the CPU 130 registers that the image being copied is larger than a predetermined size.

Moreover, claim 1 calls for in response to registering with the controller that the image on the medium is larger than a predetermined size, then forming with the controller a modified image. This is not disclosed or suggested by a user selecting an editing function on a keyboard/user interface (editor 140) and having an image control circuit modify the laser timing signals to effect the selected function as described in Hashimoto.

In col. 10, lines 27-30, Hashimoto discloses that the standard picture display (on the touch panel of control unit 136) has a

sheet-priority magnification change key 268 for effecting the automatic enlargement or reduction of image data in conformity to sheet size selected. Hashimoto fails to disclose how automatic enlargement or reduction of image data in conformity to sheet size is accomplished, and makes no mention whatsoever that in response to registering with the controller that the image on the medium (i.e. the original image) is larger than a predetermined size then forming with the controller a modified image as called for in claim 1. The Examiner appears to agree with this, but still goes on to state that it would have been obvious for one skilled in the art, from Hashimoto alone, to consider that automatic image enlargement or reduction in conformity to sheet size includes registering whether the original image (the image on the medium) is larger than a predetermined size. Further, the Examiner argues that from the bare disclosure of the automatic enlargement/reduction feature in Hashimoto, one skilled in the art would have found it obvious to provide that it is in response to registering (with the controller) that the image on the medium is larger than a predetermined size, the controller forms the modified image. The Applicants submit that the Examiner is impermissibly using hindsight here.

The bare disclosure in Hashimoto merely of a feature for automatic enlargement/reduction of image data in conformity to sheet size, without more would not make it obvious to one skilled in the art to register (with the controller) that the original image is larger than a predetermined size. The automatic enlargement/reduction of image data in conformity to sheet size may be accomplished without having anything to do with the image on the medium, much less with registering whether

the original image is larger than a predetermined size. Rather, the automatic enlargement/reduction of the image data merely for conformity to sheet size may be performed totally independent of the original image (the image on the medium). For example, the automatic enlargement/reduction in Hashimoto may be performed long after the image on the medium has been read and the medium with the image thereon removed from the scanner. To accomplish the automatic enlargement/reduction, the controller 130 in Hashimoto need only operate with the electronic data embodying the image (i.e. the electronic data embodying the image on the electronic image is all that is needed for the controller in Hashimoto to deal with the image on the medium). For example, if the CPU 130 detects that with standard timing some amount of image data along one or more scan lines "extends" beyond the width boundaries of the selected print sheet using standard timing signals or if the CPU detects that some amount of image data would be "written" on scan lines that would occur beyond the length boundaries of the sheet, the CPU 130 may adjust the signal timing so that the image data is reduced to fit the given boundaries. In other words, the CPU 130 may detect that standard timing signals may cause a "spill over" of image data, and change timing signals to the writing laser, such as by an iterative process until there is no further "spill over" and the reduced image data conforms to the selected sheet size. It is not necessary, or inherent, that the controller in Hashimoto register that the image on the medium is larger than a predetermined size in order to perform the automatic enlargement/reduction, much less that it is in response to registering with the controller that the image on the medium is larger than a predetermined size, that forming of the modified image is performed by the controller as otherwise called for in

claim 1. Hence, there would not have been a desire, and it would not have been obvious, to one skilled in the art from the disclosure in Hashimoto without more to modify the Hashimoto copier so that in response to registering (with the controller) that the image on the medium is larger than a predetermined size then the controller forms the modified image as called for in claim 1.

Hashimoto does not disclose or suggest the feature recited in claim 1. The Examiner's rejection of claim 1 based on Hashimoto should be reversed.

2. Claim 8

Claim 8 has been rejected as being obvious over Hashimoto in view of Salgado. In addition to the features of claim 1, claim 8 calls for the controller displaying a warning message on the display in response to registering that the image on the medium is larger than the predetermined size. Hashimoto and Salgado do not disclose or suggest these features. Nowhere does Hashimoto make any mention whatsoever of the CPU's or any other controller of the copier displaying any warning message on the display.

Salgado discloses a document feeding and imaging system 10 for feeding a set of plural document sheets to an imaging station to be respectively imaged with variable image processing conditions dependent on the size of the document sheet as seen in Fig. 1. The system 10 has an imaging station 18, which in the case of mixed document sizes, measures the sizes of the documents looking electronically for the edges of the document sheets in a pre-scan or slew cycle. The size determination is performed before starting the actual imaging of any of the

documents (see col. 8, lines 40-45). The system, upon sensing an invalid document size presents a warning message on the GUI 22 to that effect. This is different than what is called for in claim 8. Claim 8 does not call for the controller displaying a warning message on the display in response to a measurement of the size of the document sheets. Rather, claim 8 calls for displaying the warning message in response to registering that the image on the medium is larger than the predetermined size. This is different from what is disclosed in Salgado . Neither Hashimoto, nor Salgado disclose or suggest the features recited in claim 8. Hence, the combination of Hashimoto and Salgado cannot provide features that are not disclosed or suggested in either reference. The Examiner's rejection of claim 8 based on Hashimoto and Salgado should be reversed.

3. Claim 9

Claim 9 has been rejected as being obvious over Hashimoto. Claim 9 calls for with the controller, determining if the image on the medium is larger than a predetermined size; wherein the step of determining if the image on the medium is larger than the predetermined size is performed by the controller in response to a user selecting a predetermined transfer operation from the group of transfer operations programmed in the controller.

Hashimoto does not disclose or suggest these features. Hashimoto discloses a copier with an editor 140 allowing a user to input an editing function (e.g. masking, trimming, image shift). The editing function input is communicated to image control circuit 132 which effects the selected image editing function by varying the timing signals of the writing laser.

Accordingly, in Hashimoto, the input of an editing function by the user does not involve determining if the image on the medium (i.e. the original image being read and copied) is larger than a predetermined size. Hashimoto further makes the bare disclosure of a magnification change key 268 for automatic enlargement/reduction of images in conformity to sheet size. This however does not necessitate determining if the image on the medium is larger than a predetermined size. On the contrary, as noted before, the automatic enlargement/reduction of image data in conformity with sheet size may be accomplished in a number of ways (such as by operating with the electronic data of the image) without having to determine if the image on the medium is itself larger than a predetermined size. One skilled in the art would not find it obvious from the disclosure in Hashimoto of an automatic image enlargement/reduction in conformity with sheet size without more to provide determining, with the controller, if the image on the medium is larger than a predetermined size in response to a user selecting a predetermined transfer operation as otherwise called for in claim 9.

Hashimoto does not disclose or suggest the features recited in claim 9. The Examiner's rejection of claim 9 based on Hashimoto should be reversed.

4. Claim 15

Claim 15 has been rejected as being obvious over Hashimoto in view of Salgado. Claim 15 calls for the controller displaying the warning message on the display if the size of the image on the medium is greater than the predetermined size. Hashimoto and Salgado do not disclose or suggest these features. Nowhere

does Hashimoto make any mention whatsoever of the CPU's or any other controller of the copier displaying any warning message on the display.

Salgado discloses a document feeding imaging system 10 for feeding a set of plural document sheets to an imaging station to be respectively imaged with variable image processing conditions dependent on the size of the document sheet. As seen in Fig. 1, the system 10 has an imaging station 18, which when mixed size documents are fed, measures the sizes of the documents looking electronically for the edges of the document sheets. The size determination is performed before starting the actual imaging of any of the documents (see col. 8, lines 40-45). The system, upon sensing an invalid document size presents a warning message on the GUI 22 to that effect. Claim 15 calls for something different. Claim 15 does not call for the controller displaying a warning message on the display in response to a measurement of the size of the document sheets. Rather, claim 15 calls for displaying the warning message in response to registering that the image on the medium is larger than the predetermined size. This is different from what is disclosed in Salgado. Neither Hashimoto, nor Salgado disclose or suggest the features recited in claim 15. Hence, the combination of Hashimoto and Salgado cannot provide features that are not disclosed or suggested in either reference. The Examiner's rejection of claim 15 based on Hashimoto and Salgado should be reversed.

5. Claim 16

Claim 16 has been rejected as being obvious over Hashimoto. Claim 16 calls for the controller being programmed for determining if the image on the medium is larger than a

predetermined size, and for forming a modified image of the image on the medium if the image on the medium is larger than the predetermined size, and wherein the controller determines if the image on the medium is larger than the predetermined size in response to user selection of a predetermined image transfer operation from the number of user selectable image transfer operations.

Hashimoto does not disclose or suggest these features. Hashimoto discloses a copier with an editor 140 allowing a user to input an editing function (e.g. masking, trimming, image shift). The editing function input is communicated to image control circuit 132 which effects the selected image editing function by varying the timing signals of the writing laser. Accordingly, in Hashimoto, the input of an editing function by the user does not involve determining if the image on the medium (i.e. the original image being read and copied) is larger than a predetermined size. Hashimoto does not disclose or suggest, nor is it necessary from what is disclosed in Hashimoto that in order to perform the editing function, the controller be programmed for determining if the image on the medium is larger than a predetermined size as otherwise called for in claim 16.

Hashimoto further discloses that the copier has a magnification change key 268 for automatic enlargement/reduction of images in conformity with sheet size. Hashimoto fails to disclose how automatic enlargement or reduction of image data to conform to sheet size is accomplished. The mere disclosure in Hashimoto that the copier is capable of automatic image enlargement/reduction in conformance with sheet size does not mean that Hashimoto discloses or suggests that the controller is

programmed for determining if the image on the medium is larger than a predetermined size in response to user selection of a predetermined image transfer operation. There are a number of ways to effect the automatic enlargement/reduction of an image in conformance with sheet size that do not deal with the image on the medium (i.e. the original image). Hashimoto, without more, would not make it obvious to one skilled in the art to have the controller programmed for determining if the image on the medium is larger than a predetermined size in response to user selection of a predetermined image transfer operation as called for in claim 16.

Hashimoto does not disclose or suggest the features recited in claim 16. The Examiner's rejection of claim 16 based on Hashimoto should be reversed.

6. Claim 21

Claim 21 has been rejected as being obvious over Hashimoto in view of Salgado.

Claim 21 recites that the controller displays a warning message on the display in response to determining that the image on the medium is larger than the predetermined image size. Hashimoto and Salgado do not disclose or suggest these features. Nowhere does Hashimoto make any mention whatsoever of the CPU's or any other controller of the copier displaying any warning message on the display.

Salgado discloses an imaging station 18, which in the case of feed documents of mixed sizes, measures the sizes of the documents looking electronically for the edges of the documents in a pre-scan or slew cycle. The size determination is

performed before starting the actual imaging of any of the documents (see col. 8, lines 40-45). The system, upon sensing an invalid document size presents a warning message on the GUI 22 to that effect. This is different than what is called for in claim 21. Claim 21 does not call for the controller displaying a warning message on the display in response to a measurement of the size of the document sheets. Rather, claim 21 recites that the controller displays the warning message in response to registering that the image on the medium (not the document sheet) is larger than the predetermined size. This is different from what is disclosed in Salgado. Neither Hashimoto, nor Salgado disclose or suggest the features recited in claim 21. Hence, the combination of Hashimoto and Salgado cannot provide features that are not disclosed or suggested in either reference. The Examiner's rejection of claim 21 based on Hashimoto and Salgado should be reversed.

7. Claim 23

Claim 23 has been rejected as being obvious over Hashimoto. Claim 23 recites that the controller is programmed for registering a size of the image on the medium, and for comparing the size of the image with a predetermined image size in response to user selection of a predetermined image transfer operation, and wherein if the size of the image on the medium is larger than the predetermined image size the controller makes available for selection user selectable features.

Hashimoto fails to disclose or suggest these features. Hashimoto fails to disclose or suggest that the controller registers the size of the original image for comparing the size of the image with a predetermined image size. Moreover,

Hashimoto discloses user selectable masking, trimming, erasing, and image shifting functions (col. 8, lines 26-29, and col. 9, lines 1-4), but these features are "always on". The Examiner agrees with this stating on page 3 of paper No. 5 that having these user selectable features always on means that the features are always present for user selection. The Examiner has erred however in considering features that are always present to be the same as making the features available upon the occurrence of some event. If the user selectable features are always present, then it axiomatically follows that they cannot be made present or made available upon the occurrence of some event (i.e. if the size of the image is larger than the predetermined size). If something is always present or available, then it cannot possibly be made present or available as it is already there. In order for something to be made, it must not exist or must not be available prior to it being made. Hashimoto does not mention making features available for user selection if the size of the image on the medium is larger than a predetermined image size as otherwise called for in claim 23. There is no mention whatsoever in Hashimoto of the controller making available for selection user selectable features including cropping the image, or reducing the image if the size of the image is larger than the predetermined image size as called for in claim 23.

It would not have been obvious to one skilled in the art from the disclosure in Hashimoto without more to modify the Hashimoto copier to make available the user selectable features of cropping the image, or reducing the image if the size of the image on the medium to be copied is larger than a predetermined size as called for in claim 23.

Hashimoto does not disclose or suggest the features recited in claim 23. The Examiner's rejection of claim 23 based on Hashimoto should be reversed.

The appendix of claims is attached hereto. A check in the amount of \$330 is enclosed herewith for the appeal brief fee. The Commissioner is hereby authorized to charge payment for any additional fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



Janik Marcovici
Reg. No.: 42,841

12/8/03

Date

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

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IX. APPENDIX OF CLAIMS

The texts of the claims involved in the appeal are:

1. A method for transferring an image disposed on a medium with an image transfer device, the method comprising the steps of:

providing the image transfer device with a controller and a reader operably connected to the controller for reading the image on the medium;

reading the image on the medium with the reader of the image transfer device; and

in response to registering with the controller that the image on the medium is larger than a predetermined size, then forming with the controller a modified image from the image on the medium wherein the modified image is smaller than the predetermined size.

2. A method in accordance with Claim 1, further comprising the step of rotating with the controller the modified image wherein when the modified image is transferred onto a different medium the modified image on the different medium is rotated in comparison to an orientation of the image on the medium.

3. A method in accordance with Claim 1, wherein the step of forming the modified image is performed automatically by the controller when the controller registers that the image on the medium is larger than the predetermined size.

4. A method in accordance with Claim 1, wherein the step of forming the modified image comprises at least one of cropping the image, or reducing the image.

5. A method in accordance with Claim 4, wherein cropping the image comprises at least one of cropping borders of the image, cropping the head and foot of the image, or cropping a side of the image.

6. A method in accordance with Claim 4, wherein reducing the image comprises at least one of performing an isotropic reduction of the image, or performing an anamorphic reduction of the image.

7. A method in accordance with Claim 1, wherein forming the modified image comprises sending an electronic embodiment of the image on the medium from the reader to the controller, and modifying the electronic embodiment to form the modified image, wherein the modified image is at least one of a cropped image or a reduced image.

8. A method in accordance with Claim 1, further comprising the step of displaying a warning message with the controller on a display of the image transfer device, the controller displaying the warning message on the display in response to registering that the image on the medium is larger than the predetermined size.

9. A method for transferring an image on a medium with an image transfer device, the method comprising the steps of:

providing the image transfer device with a controller, a reader operably connected to the controller for reading the image on the medium,

and image transfer means operably connected to the controller for transferring the image to a different medium, the controller being programmed to operate the reader and image transfer means to perform a group of user selectable transfer operations;

reading the image on the medium with the reader of the image transfer device;

with the controller, determining if the image on the medium is larger than a predetermined size;

if the size of the image on the medium is greater than the predetermined size, then forming with the controller a modified image of the image on the medium; and

with the controller, sending the modified image to the image transfer means for transferring the modified image to the different medium;

wherein the step of determining if the image on the medium is larger than the predetermined size is performed by the controller in response to a user selecting a predetermined transfer operation from the group of transfer operations programmed in the controller.

10. A method in accordance with Claim 9, wherein the step of forming the modified image is performed automatically by the controller of the image transfer device.

11. A method in accordance with Claim 9, wherein the modified image is smaller than the predetermined size.

12. A method in accordance with Claim 9, wherein forming the modified image comprises at least one of cropping the image, or reducing the image.

13. A method in accordance with Claim 12, wherein cropping the image comprises at least one of cropping borders of the image, cropping the head and foot of the image, or cropping a side of the image, and wherein reducing the image comprises at least one of performing an isotropic reduction of the image, or performing an anamorphic reduction of the image.

14. A method in accordance with Claim 9, wherein the predetermined image transfer operation comprises rotating the image.

15. A method in accordance with Claim 9, further comprising the step of displaying a warning message with the controller on a display of the image transfer device, the controller displaying the warning message on the display if the size of the image on the medium is greater than the predetermined size.

16. An image transfer device for transferring an image disposed on a medium, the image transfer device comprising:

a controller programmed to operate the image transfer device for performing a number of user selectable image transfer operations; and

a reader operably connected to the controller for reading the image on the medium;

wherein the controller is programmed for determining if the image on the medium is larger than a predetermined size, and for forming a modified image of the image on the medium if the image on the medium is larger than the predetermined size, and wherein the controller determines if the image on the medium is larger than the predetermined size in response to user selection of a predetermined image transfer operation from the number of user selectable image transfer operations.

17. An image transfer device in accordance with Claim 16, wherein the modified image is smaller than the predetermined size.

18. An image transfer device in accordance with Claim 16, wherein the controller has programming for automatically forming the modified image upon determining that the image on the medium is larger than the predetermined size.

19. An image transfer device in accordance with Claim 16, wherein the controller programming for forming the modified image comprises programming for at least one of cropping the image, or for reducing the image.

20. An image transfer device in accordance with Claim 19, wherein the controller programming for cropping the image comprises at least one of programming for cropping borders of the image, programming for cropping the head and foot of the image, or programming for cropping a side of the image,

and wherein the controller programming for reducing the image comprises at least one of programming for performing an isotropic reduction of the image, or programming for performing an anamorphic reduction of the image.

21. An image transfer device in accordance with Claim 16, further comprising a display operably connected to the controller, wherein the controller displays a warning message on the display in response to determining that the image on the medium is larger than the predetermined image size.

22. An image transfer device in accordance with Claim 16, wherein the predetermined image size is a maximum image size which can be rotated by the controller.

23. An image transfer device for transferring an image disposed on a medium, the image transfer device comprising:

- a controller programmed to operate the image transfer device for performing a number of user selectable image transfer operations; and

- a reader operably connected to the controller for reading the image on the medium;

wherein the controller is programmed for registering a size of the image on the medium, and for comparing the size of the image with a predetermined image size in response to user selection of a predetermined image transfer operation, and wherein if the size of the image on the medium is larger than the predetermined image size the controller makes available for selection user selectable features